THE RADICAL OPERATIVE TREATMENT OF TRICHIASIS.[1]

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The following method of treating trichiasis is the outcome of my experience in Egypt, where this condition is found in quite one quarter of those cases afflicted with eye disease which require operative interference during treatment.

For the sake of brevity, I wish for the moment to include under the term "trichiasis," all those cases in which, from whatever cause, except spasm, the eyelashes sweep against the front of the eyeball as in trichiasis and distichiasis, either total or partial, also in entropion, and these whether occurring in the upper or lower eyelid, because the following operation is equally applicable to all of them, and nearly always ensures perfect results.

Originally when these cases presented themselves for treatment, I naturally employed those operations which are commonly found described in text-books and elsewhere, but was most dissatisfied with the results, owing either to recurrence of the malady, or to the after-deformity produced in the eyelid, the latter consisting of visible and unseemly cicatrices, or even amounting to actual distortion.

The method of operation which I at present employ and now describe, I have, for want of a better word to express its nature, termed "tarsal re-position." The process of perfecting it has been very gradual, and it was not until a great many cases had been operated on, and the defects appearing in each successive series had been rectified, that, finally having performed it on a large number of cases with almost invariable success, I have felt justified in trying to make the matter generally known.

The operation may be briefly summarised. The tarsal cartilage is incised from the conjunctival surface of the lid and

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divided; the part carrying the eyelashes is then everted and held in position by what is practically a wire-splint.

The instruments requisite for operation are the following: (1) A scalpel, or a Beer's cataract knife, with a well rounded off and sharp cutting point. (2) An ordinary "Entropion Spatula," which is more convenient to use if a narrow square metal ridge is added across the back, enabling the operator to hold it in position, when necessary, with the fifth finger of the left hand. (3) A pair of strong double-bladed fixation forceps, closed by a sliding catch. (4) Needle-holding forceps, two small double-eyed curved needles for wire, and very fine silver wire thoroughly softened before use by being passed through the flame of a spirit lamp.

The operation in detail may be described as follows:—The eyebrow and both surfaces of the eyelids having been thoroughly cleansed, the spatula is passed into the conjunctival fornix, under the upper eyelid, which is then everted; an incision is made on this conjunctival surface of eyelid, parellel to, and at a distance of about 2mm. from the margin; it must divide the tarsus completely in its whole thickness, and from end to end. Any bleeding which occurs is easily arrested by pressure. The eyelid is replaced in position, and its divided margin grasped between the blades of the forceps; the catch is closed, and the handle of the forceps then carried upwards, so as to rest against the eyebrow, and thus forcibly evert the separated portion of tarsus which carries the eyelashes. One needle armed with silver wire, about 18 inches (45cm.) long, is sufficient for each eyelid; it is passed vertically downwards, through the skin-surface of the centre of the lid into the substance of the upper portion of tarsus, and emerging in the middle of its divided edge then enters the original anterior surface of the lower separated and everted portion of tarsus, to be finally brought out on the free margin of the eyelid, midway between the eyelashes and conjunctival edge. Two other sutures are similarly introduced, one towards each end of the eyelid. The opposing ends of these three sutures, which should be left long, are now separately twisted together, not so tightly as to cause constriction but just firmly enough to retain the eyelid margin in its everted position. The forceps are removed. The remaining part of the suture is now passed along in the tissue of the eyebrow, from

one extremity to the centre, at which points the corresponding twisted strands of wire are attached to it; the needle is re-introduced at the centre of the eyebrow, close to its point of emergence, and is brought out at the opposite end, where the third remaining twisted suture is secured to it. When the lower eyelid is the site of operation, the tissue of the cheek is used as a fixation point, instead of the eyebrow.

Although this description is necessarily a somewhat lengthy one, the operation when performed only occupies about three and a-half to four minutes. I usually find that a requisite amount of anæsthesia can be produced by the simple instillation of cocaine in the eye, as the operation is such a rapid one. Hitherto I have found that the subcutaneous injection of cocaine, in these cases, is unsatisfactory. I have had to administer either nitrous-oxide gas, or chloroform, to several patients who were very nervous, and sometimes also to women, but as a rule patients bear the operation very well.

No dressing other than a dusting of dermatol, &c., in powder, need be employed; the parts should be kept absolutely clean, and the stitches removed on the fifth to seventh day. This is best done by first dividing the three twisted strands, then the eyebrow sutures on each side of, and close to the central knot should be divided, and the two halves from either end withdrawn; then each loop embracing the lid margin is cut, and the wire being soft, is easily withdrawn by simple traction. As a rule, there is scarcely any œdema following the operation, but should it occur, the administration of a purge will usually prove beneficial; if, however, it does not subside, a cold lead-lotion fomentation must be kept constantly applied over the parts until the swelling is reduced.

After the lapse of four to ten days from the removal of the stitches, it is most difficult, as a rule, to realise except on very close examination, that the eyelid has ever been interfered with.

The only cases of recurrence which I have seen after this operation, were when the eyelid had been previously operated on unsuccessfully, and considerable deformity had been produced.

In those cases where there are only one or two misdirected eyelashes, I formerly cauterised them to their base, either with a fine wire-point attached to an electric battery, or that

of an ordinary actual cautery. But I am of opinion that it is much more effectual and less painful to incise the skin of the eyelid margin vertically, and remove the eyelash in question, afterwards closing the wound with a silk stitch. In those cases where there is only a small group of eyelashes, and these placed closely together, it is better to make an incision along the eyelid margin, exposing their bases, and then pass a heated cautery-point over them. This method cannot, however, be employed when the condition of trichiasis is a total one, as the resulting cicatrix only renders a recurrence of the malady inevitable.

In the operation of tarsal re-position, here described, it is necessary to observe the following three points when performing it, in order to ensure its success:—

(1) The tarsus must be divided along its entire length, and in its whole thickness.

(2) The separated marginal portion of tarsus must be forcibly everted, because the ordinary traction exerted by sutures is not sufficient.

(3) The securing of the vertical twisted strands to the eyebrow is absolutely essential, in order to maintain the parts at complete rest and in proper position during the process of union and healing.

I performed the operation, in its imperfected forms, in 674 cases, with 4 per cent of failures, caused principally by stitches sloughing out; but this adverse factor has now been overcome since performing the operation as here described, which I have now done in 374 instances, and with invariable success, except in nine cases, where the eyelids were greatly deformed owing to previous operation. With other methods derived from text-books, &c., I operated in 117 instances, with varying success, and nearly always with some after-deformity.

I have also operated on 431 cases of partial trichiasis by one of the above described methods, thus making altogether a total of 1596 operative interferences.

My reasons for mentioning the foregoing figures are simply, to emphasise the fact that this method of treatment is not mere theory, but on the contrary, is one which has been worked out practically on a sufficiently large scale to test its usefulness.